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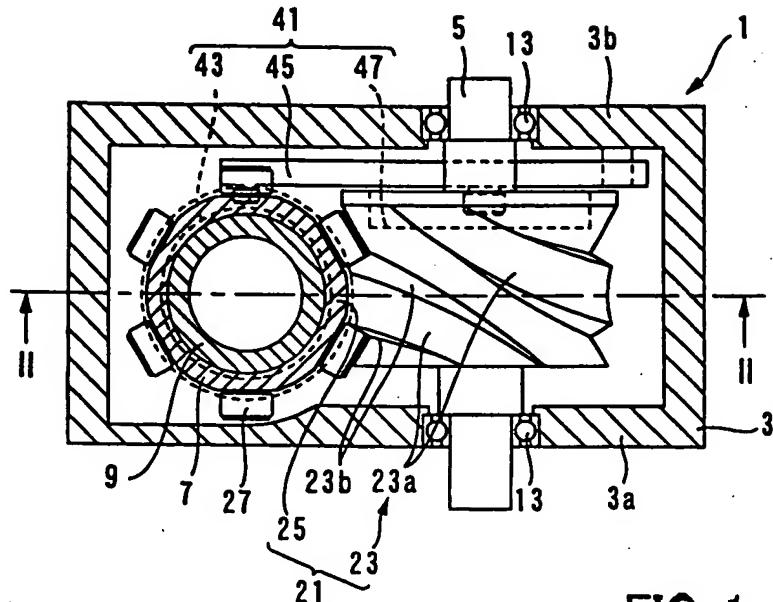


FIG. 1

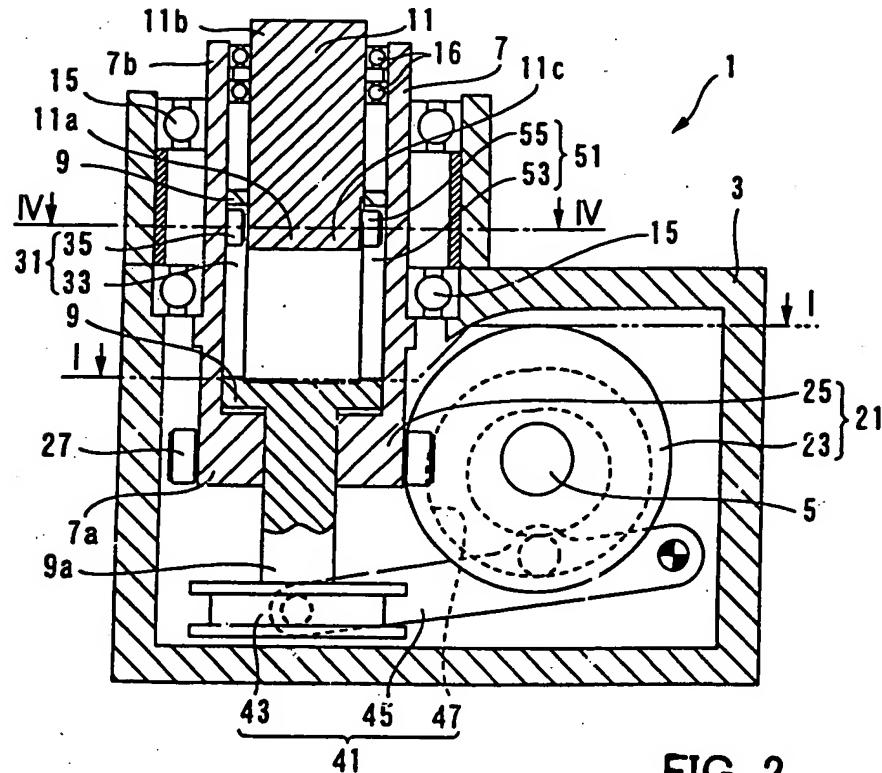


FIG. 2

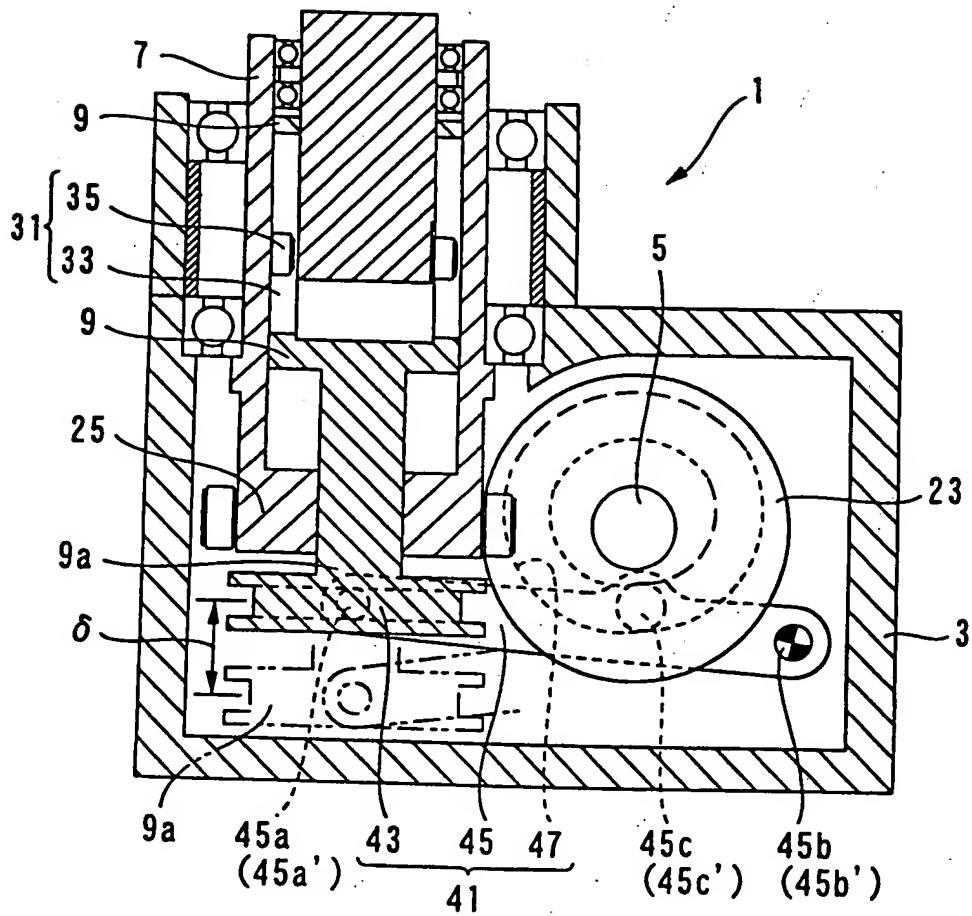


FIG. 3

Title: CAM APPARATUS AND PICK AND PLACE APPARATUS UTILIZING THE SAME

Inventor: Heizaburo Kato  
Atty. Ref.: 3557-000007/DVA

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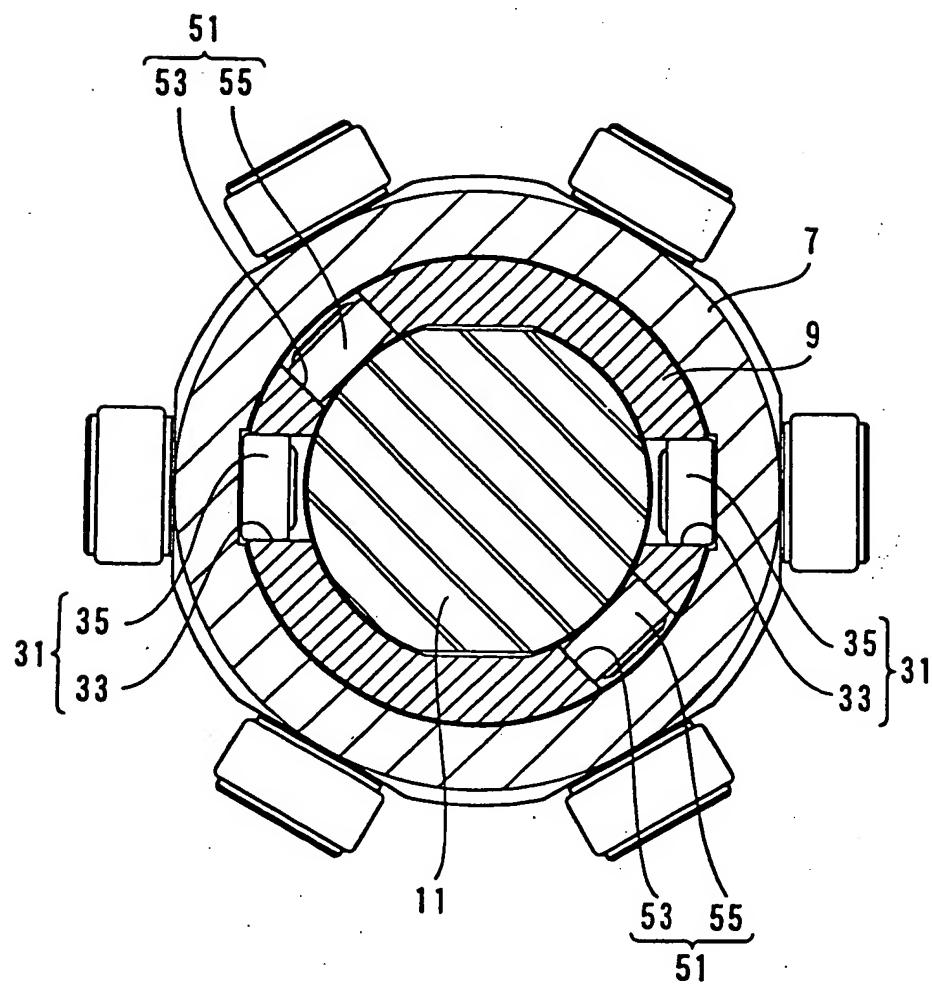


FIG. 4

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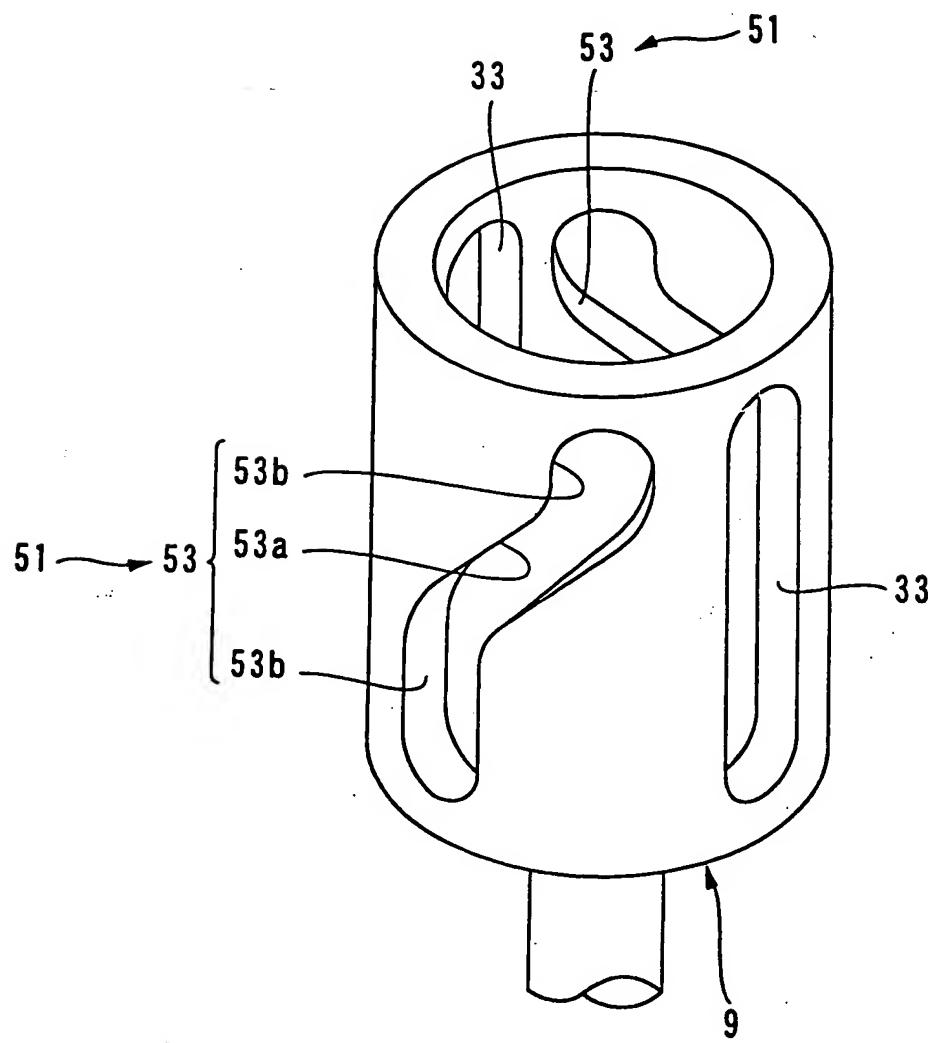


FIG. 5

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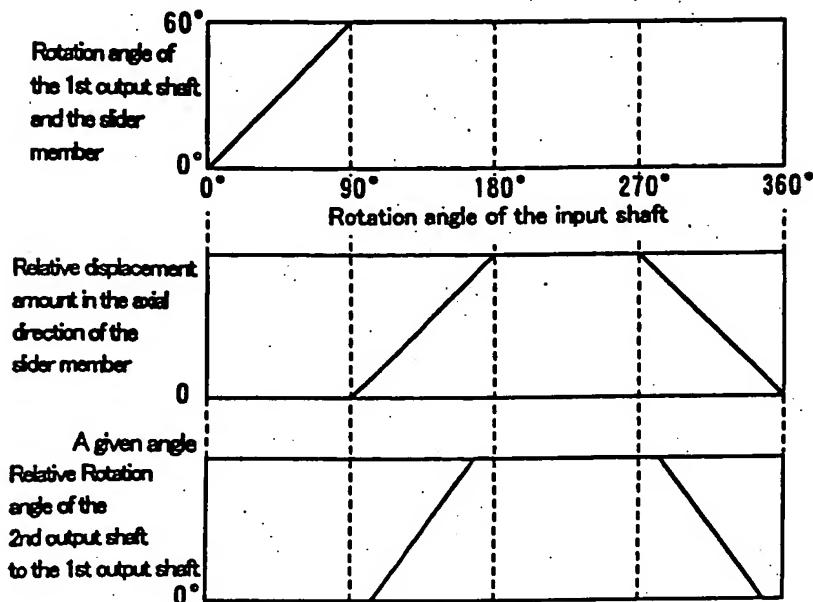
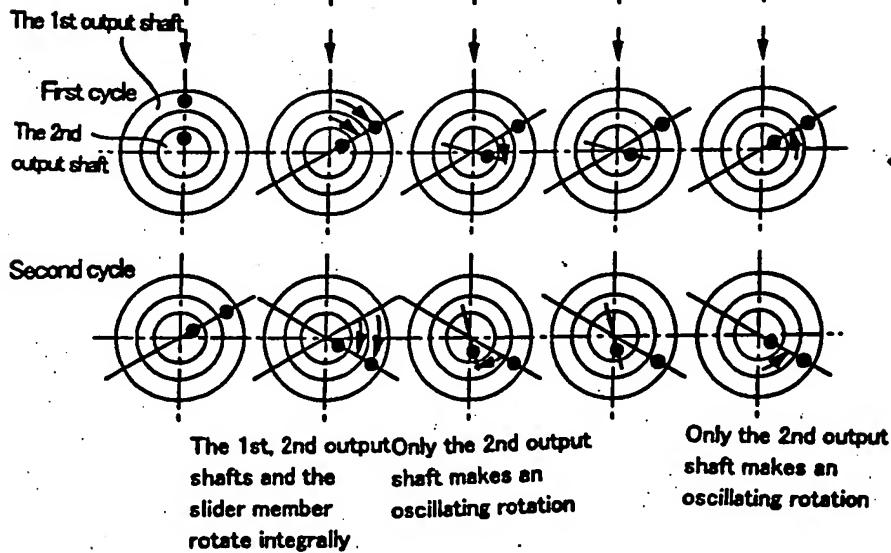
Timing DiagramsOperation Diagrams

FIG. 6

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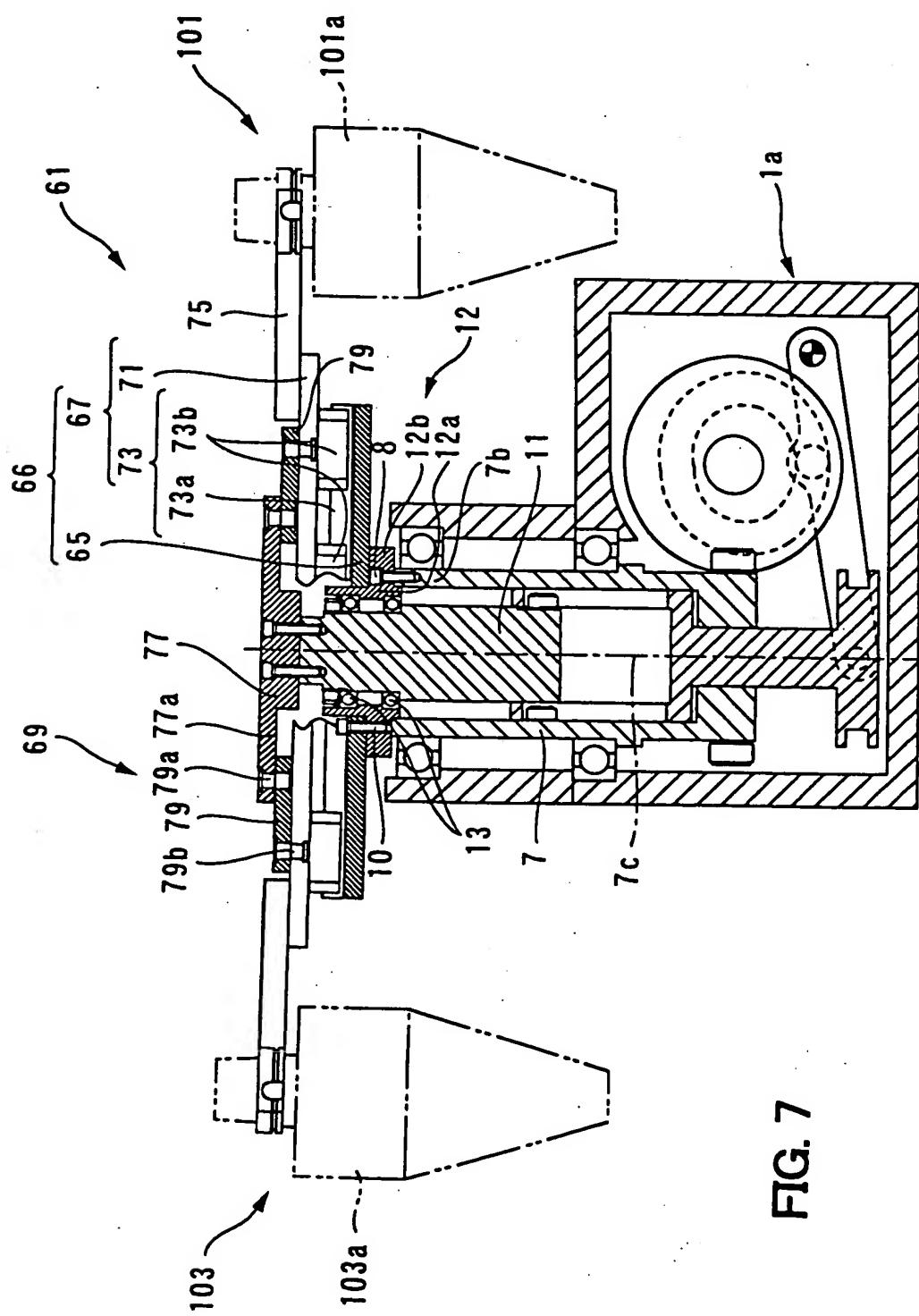
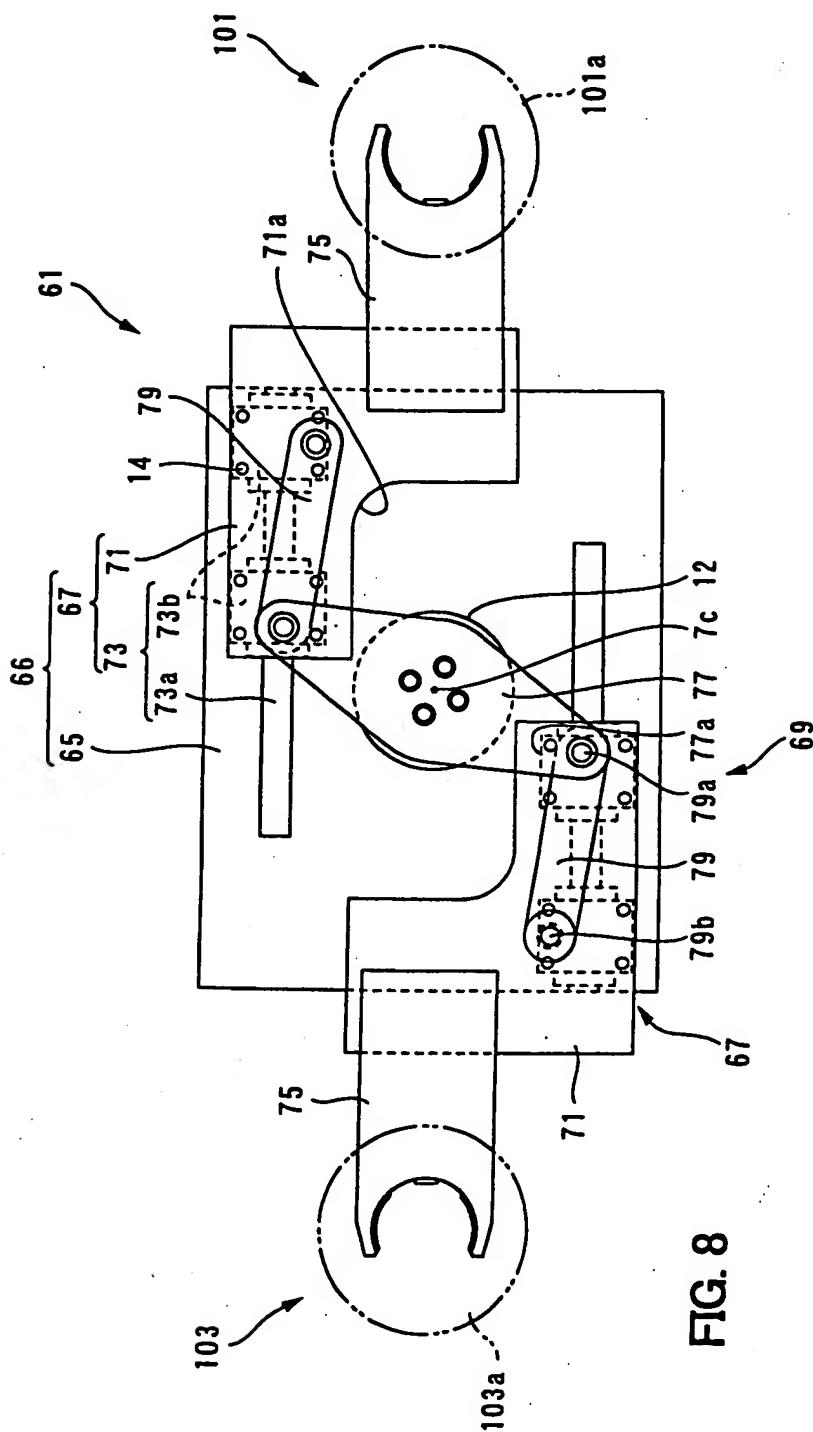


FIG. 7

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8  
E

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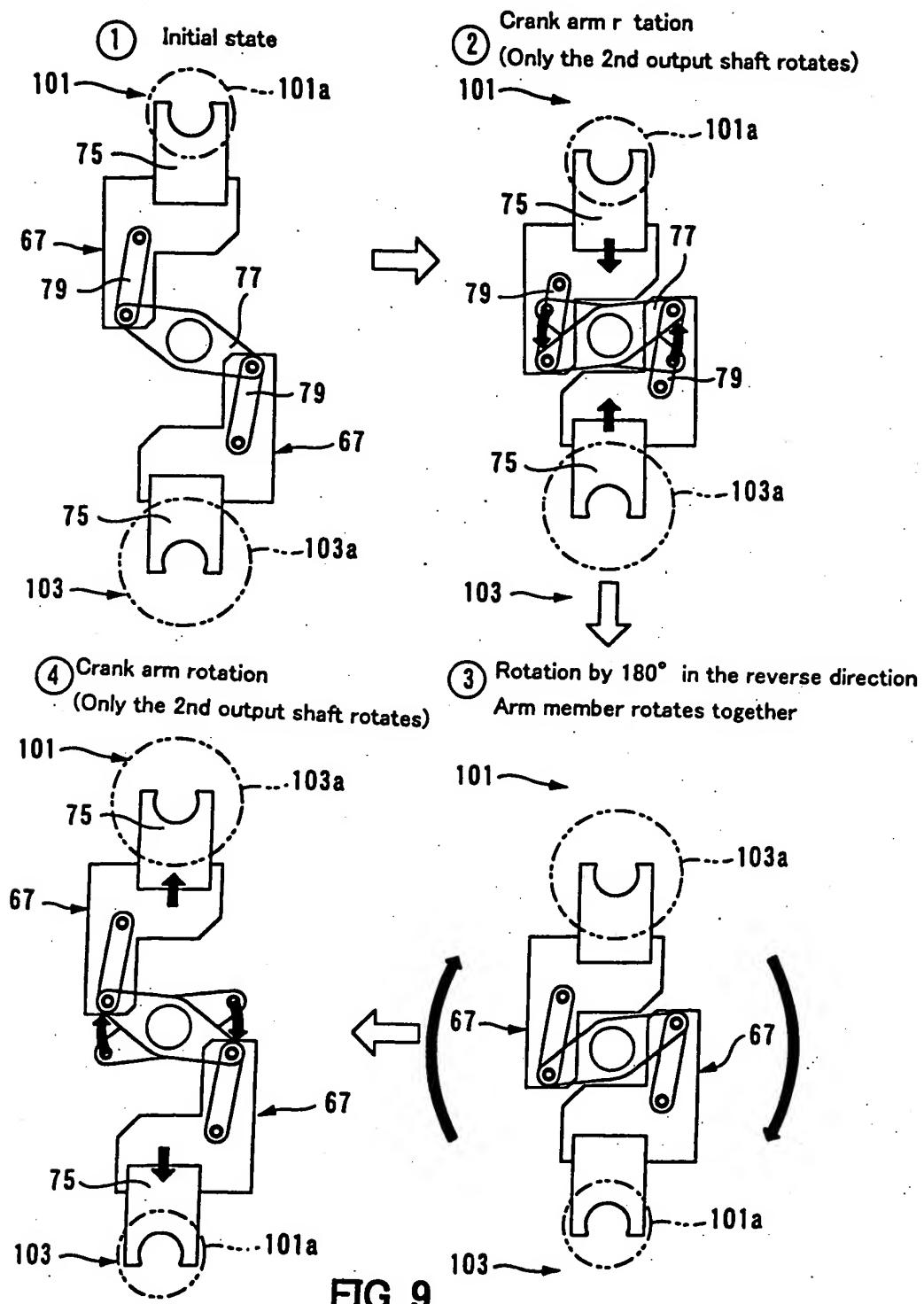
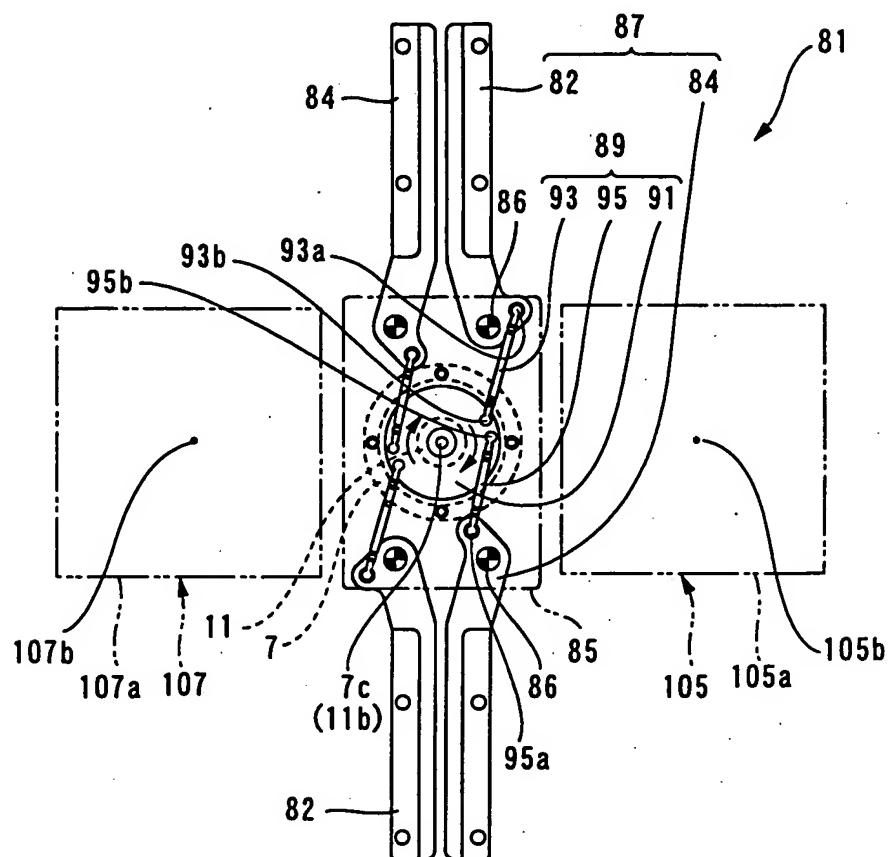


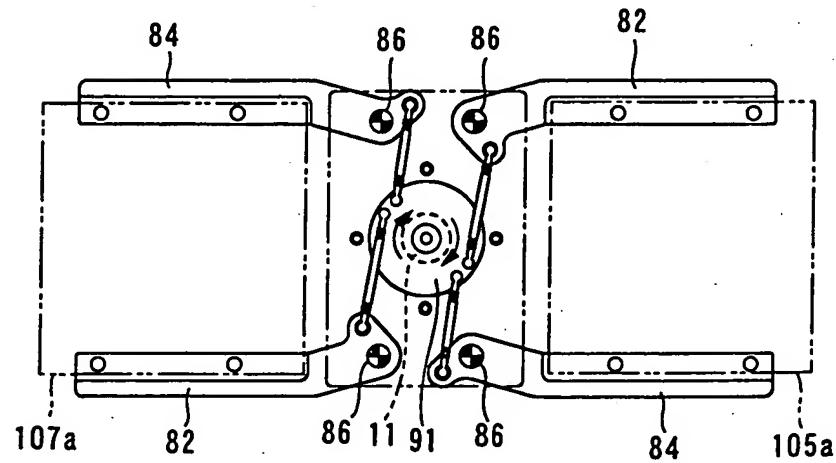
FIG. 9

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**FIG. 10A** The snatching member in the unfolded state

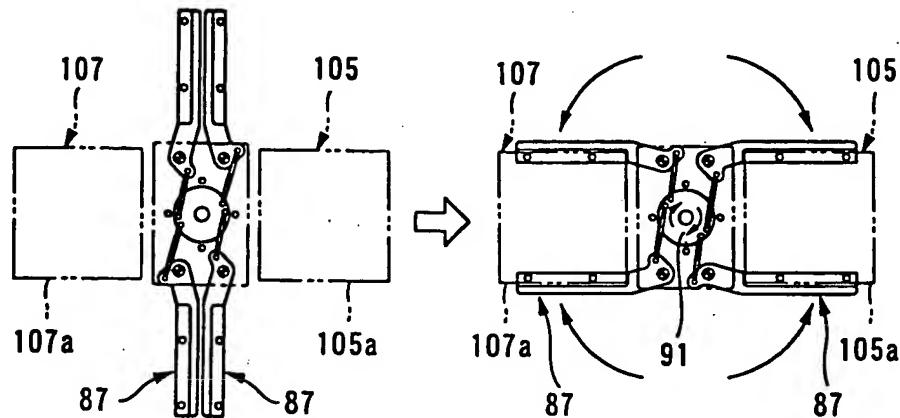


**FIG. 10B** The snatching member in the folded state

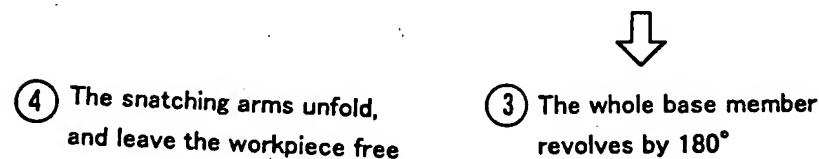


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① Initial state



② The snatching arms fold, and catch the workpiece



④ The snatching arms unfold, and leave the workpiece free

③ The whole base member revolves by 180°

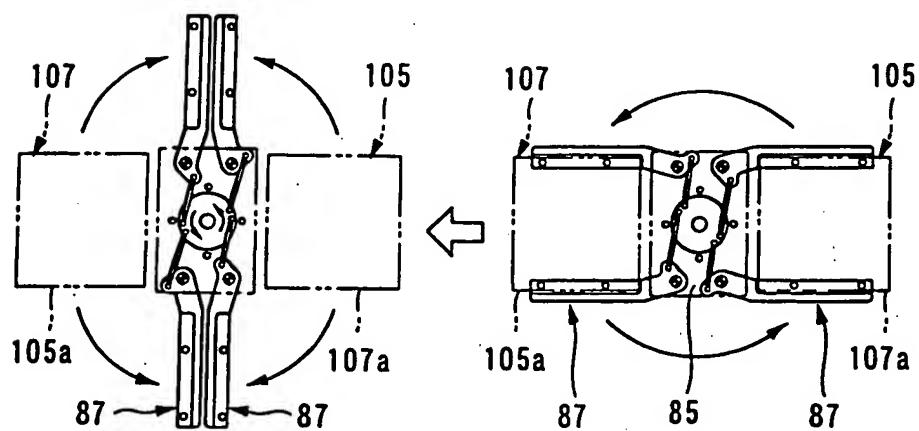
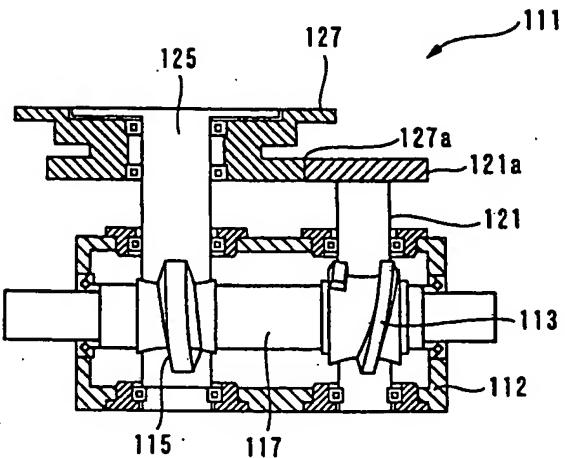
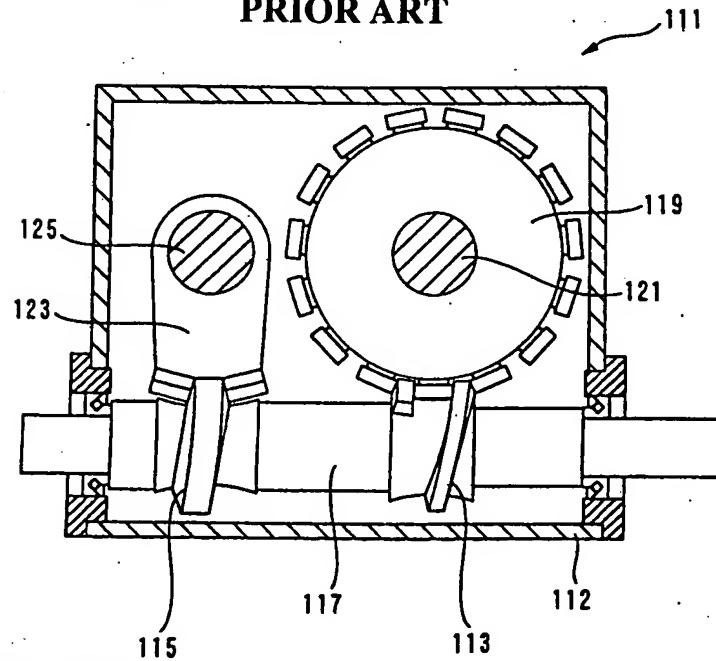


FIG. 11

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**FIG. 12A**  
**PRIOR ART**



**FIG. 12B**  
**PRIOR ART**